

[0132]

CLAIMS

1. An adhesive film comprising a polyimide film and an
5 adhesive layer containing a thermoplastic polyimide, the
adhesive layer being disposed on at least one surface of the
polyimide film,

wherein the polyimide film is formed by a process
comprising:

10 step (A) of casting and applying a solution containing
a polyamic acid onto a support to form a gel film;

step (B) of stripping off the gel film and fixing both
ends of the gel film; and

15 step (C) of heating and transporting the film with both
ends being fixed,

wherein in at least a portion of step (C), the film is
transported in a state loosened in the TD direction.

[0133]

2. The adhesive film according to Claim 1, wherein the
20 relationship $-15 \leq \theta \leq 15$ is satisfied at any position in
the width direction (TD direction) of the film, wherein $\theta(^{\circ})$
is the angle of molecular orientation axis to the MD
direction of the polyimide film.

[0134]

25 3. The adhesive film according to Claim 1 or 2, wherein

the relationships $2 \leq \alpha_1 \leq 10$, $13 \leq \alpha_2 \leq 25$, and
20 $\leq (\alpha_1 + \alpha_2) \leq 40$ are satisfied, wherein α_1 (ppm/°C) is the
coefficient of linear expansion (200°C to 300°C) of the
polyimide film in the MD direction, and α_2 (ppm/°C) is the
5 coefficient of linear expansion (200°C to 300°C) of the
polyimide film in the TD direction.

[0135]

4. A flexible metal-clad laminate obtained by laminating
a metal foil to the adhesive film as defined in any one of
10 Claims 1 to 3 with a thermal roll laminator including at
least one pair of metal rollers.

[0136]

5. The flexible metal-clad laminate according to Claim 4,
wherein the total of the rate of change in dimensions
15 before and after the removal of the metal foil and the ratio
of change in dimensions before and after heating the
laminate from which the metal foil has been removed at 250°C
for 30 minutes is in a range of -0.06% to +0.06% both in the
MD direction and in the TD direction.

20 **[0137]**

6. A method for producing an adhesive film including a
polyimide film and an adhesive layer containing a
thermoplastic polyimide, the adhesive layer being disposed
on at least one surface of the polyimide film, the method
25 comprising forming the polyimide film by a process

comprising:

step (A) of casting and applying a solution containing a polyamic acid onto a support to form a gel film;

step (B) of stripping off the gel film and fixing both
5 ends of the gel film; and

step (C) of heating and transporting the film with both ends being fixed,

wherein in at least a portion of step (C), the film is transported in a state loosened in the TD direction.